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APPLICANT : RES DEV CORP OF JAPAN;

INVENTOR : KATO MASATOSHI;

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C12R 1:91)

TITLE : ANTIBODY CDNA

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10      20      30      40      50
5' GAGGTGACGC TTTTGGAGTC TGGGAGAGC TTGGTACAGC CTGGGGGTC
60      70      80      90     100
CCTGAGACTC TCTTGGGCGG CCTCTGGATT CACCTTTAGC AGCTAGGCCA
110     120     130     140     150
TGAGCTGGGT CCGCCGGGCT CCGGGGAGG GAGCTGGATG GGTCTCAGCT
160     170     180     190     200
ATTCTGCTTA GTCTTGTGTG CACATATCTC GCGAGCTCGG TGAAGGGCCG
210     220     230     240     250
GTTCAACATC TCCAGAGACA ATTCCAGAGA CAGCTGTGAT CTGCAATGTA
260     270     280     290     300
ACAGCTTGAG AGCTGGGAC AGGCGCTAT ATTACTGTGC GAGAGATGCT
310     320     330     340     350
AGTTTATTA CTATGAGAT AGTGGTGTCA TGGGGCAGG GAGCCTGCT
360
CACGTCATCC TCA 3'

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10      20      30      40      50
5' GACATCCAGA TGACCGACTC TCCATCTCTC CCGTCTGAT CTATGAGAGA
60      70      80      90     100
CAGACTCAAC ATCACTTTCG GGGCAAGTCA CAGCATTCGC ACCCTTTTGA
110     120     130     140     150
ATTGTTATCA CGGAGAGCA GGGAAAGCC CTAACTCTCT GATCTGTGCT
160     170     180     190     200
GCACTCAATT TGCAACTTCG GGTCCATCA AGTTCTAGTG CCAATGATTC
210     220     230     240     250
TGGGACAGAT TTCACTTCA CCAACAGCAG TCTGCACTCT GAGAGTTTG
260     270     280     290     300
CAACTTACTA CTGTCAACAG AGTATAGTGA CCGGTACAG TTTTGGCCAG
310     320
GGGACCAAGC TGGAGATCAA A 3'

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ABSTRACT : PROBLEM TO BE SOLVED: To obtain a new antibody cDNA coding for a variable region of a heavy chain of an antibody, having specific nucleotide sequences, and used for the gene engineering-based production of a monoclonal antibody capable of being utilized for the diagnosis of a cancer, application for an immunological therapy, the purification of a cancer specific antigen, etc.

SOLUTION: This cDNA coding for a variable region of a heavy chain of an antibody is a new cDNA coding for a human monoclonal antibody containing a nucleotide sequences expressed by formula I, and another cDNA coding for a variable region of a light chain of an antibody is also a new DNA coding for a human monoclonal antibody containing sequences expressed by formula II. These cDNA's are useful for the gene engineering-based production of a human monoclonal antibody useful for application in a medical field such as the clinical diagnosis of a cancer, an immunological therapy, the purification of a cancer specific antigen, etc. These cDNA's are obtained by extracting mRNA from a human-human hybridoma prepared by fusing a human lymphocyte immunized in vitro by using a cancer cell line, with the cancer cell line, synthesizing the cDNA and then cloning with a PCR method.

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